

PSYCHOLOGY

# "Bewitched" Virginia Child Is Found to be Normal

## Scientists Travelling to Mountain Home Find Simple Explanation of Bouncing Bed and "Scratchings"

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**Editor's Note:** This is the report of the scientific investigation of the famous "bouncing bed" child made under the auspices of Science Service.

**P**RESS and radio reports of a bewitched child bouncing in bed, beds jumping up from floor, chairs moving alone, ghost hands and mysterious vanishing things have recently come from Jonesville, Lee County, Virginia. This is the rugged region of the Daniel Boone trail, trail of the lonesome pine, the Wise murder trial, isolated mountain folk, and popularly supposed place where superstitions flourish and anything can happen. The first newspaper and verbal accounts confirmed this popular fancy. Investigation by us on the ground proved the alleged occurrences grossly exaggerated.

### Checking Testimony

Direct questioning of numerous individuals who themselves had observed the alleged phenomena at first hand showed many important discrepancies from published accounts. With a few exceptions the testimony of the majority ran as follows:

The bed at no time left the floor: only the mattress shakes or bounces. Most of them had heard scratchings resembling finger nails on wood and patting noises like striking the flat of the hand on cloth. Many said that nothing had happened the nights they were present except quite ordinary movements of a child in bed. Some added what they had been told by the child's family and certain neighbors. They said a month ago 71-year-old Rebecca Sybert noticed peculiar things happened to the pillow on which slept her granddaughter, Bertha Sybert, aged nine. The two were living alone and slept in the same bed and the pillow would begin bouncing and emit patting noises. Also there were scratches which she thought came from a rat

Later the bouncing spread to center and foot of the bed. Moreover, one evening a chair on which the girl was sitting became agitated and moved backward some four feet.

The more exceptional testimony of a small minority was in no case as remarkable as the newspaper accounts. They simply emphasized a greater amplitude of the bouncing movements. One neighbor and the child herself were the only two who claimed to have seen ghostly objects moving about the bed. The family wanted it understood that the manifestations were supernatural.

### Preliminary Observations

On the morning of Dec. 22, accompanied by a newspaper reporter, we climbed to the time-worn 3-room cabin, high on the slopes of Powell Mountain. We found it occupied by the grandmother, the mother, the remarkable child, Bertha, and her three small brothers and sisters. The father was not home. The family at first showed resentment toward the reporter who endeavored to take pictures of the interior and the principals (they had been photographed enough, it was said). The grandmother, however, related to us the essentials of the phenomena. Her story in no way deviated from the majority report stated above except in indicating the supernatural character of the events. She reported these happenings invariably would begin at dusk (5 p. m. Central Standard Time) and continue intermittently from one-half to two hours.

Bertha is a lively child, attractive and normal in every respect. Her responses to the Woodworth-Wells association test indicated no psychological abnormality and suggested an intelligence approximately one year above her chronological age. Interview with Bertha's teacher later in the day reinforced our conclusions about the child's normality.

Late afternoon without a reporter we returned to the cabin. The father received us cordially and the rest of the family were friendlier than in the morning, particularly after a gift of fruit and

gum. The father almost at once offered to have Bertha exhibit her "powers." The grandmother objected "hit hain't never appeared before 5." We expressed no hurry. However, arrival of other visitors made us anxious to begin observations before it was too crowded. The room is approximately 12 by 15 feet. The furnishings consist of a sideshelf, a fireplace, several chairs, and three beds, one wooden double and two single. It was now dark except for the feeble light from a small kerosene lamp in the far corner from the bed and whatever glow came from the fireplace. The exhibition bed was in the darkest corner of the room. Dr. B. moved the bed away from the walls so that we could observe from either side.

### Alert and Happy

Bertha was called by her father to an adjoining room and the door closed. After a couple minutes the two re-entered with the child fully clothed except for shoes, as before. She jumped into bed and crept under three layers of covers. She kept her hands usually in full view close to her face. Almost immediately she began bouncing, alert and in good spirits, and from time to time "popping" her chewing gum. Dr. B. felt so certain that she was merely getting settled in bed for the strange performance that he remarked, "When is it going to begin?" She and her father replied, "Hit's started already."

We first permitted unrestricted exhibition. The mattress swayed up and down with her body and the springs squeaked. Her extremities showed little movement. The motion seemed to originate in the pelvic region. When the movement stopped after a minute or two, the father exhorted, "Bertha, talk to hit. Tell hit to bounce good." She repeated the latter part of the phrase literally as she did with other suggestions to the "booger" whether from the father or others present. The excursions of the mattress increased. Then we began our control tests. Whether we placed hands above or below the covers, the movement stopped as soon as they approached her body. However, with quick placements, Dr. B. immediately after the more violent movements found noticeable contractions of stomach and posterior thigh muscles. Movements of bed and body also ceased if her attention was distracted by a question or command or childish desire for gum or fruit. Evidently the phenomenon required undivided attention on her part.

This necessity for attention was also observed by others than Dr. B. and Dr. H.

Dr. H. inquired of Bertha what she thought was making her bounce. Among other things she answered, "it might be a witch." When asked what a witch looks like, she said, "Hit's kinder like a shadder. It rides on a broom in the sky," and volunteered to show a picture of one. She jumped out of bed and displayed a small silhouette of a witch on a broom, one of the numerous figures on a page of her brother's first reader.

This intermission gave Dr. B. and others opportunity to examine the bed thoroughly. The bedspring is a dilapidated one of very weak coil construction with broken springs protruding and rubbing against the footboard. These wires had already made several deep scratches. When the mattress was agitated by hand, the springs squeaked all over and made scratching noises.

When Bertha was ordered by her father back to bed for further demonstrations, the room was badly crowded with approximately forty people. Dr. B. observed the reactions of visitors while Dr. H. talked with the family. Despite the efforts of the family to emphasize the supernatural nature of the evening's performance, only a minority of the visitors' comments indicated acceptance of the proffered explanation. The majority voiced skepticism, were cynical or amused.

#### No Remedies Used

The mother while claiming to be anxious to get rid of the "booger," had not used any of the several local "remedies" against witchcraft except putting a Bible under the girl's pillow. This had no effect. They had not even resorted to prayer.

The grandmother and one of her sons, other than the father of the family, were irritated because of the presence of the many unbelievers in such a large crowd and claimed it inhibited Bertha. The father from time to time suggested that those who had seen ought to leave and make room for others.

After an hour a neighbor to whose home the child had been removed the previous evening for special trial to see if the "hant" would follow to other localities and who had found special reactions of it to music, entered with his guitar. Seated beside the bed, he played his instrument and exhorted Bertha to further manifestation of her "powers." We observed renewed vigor of movements in time with the plucking of the guitar. The father and his neighbor

called attention to squeakings which this time appeared to come from the head panels of the bed. Dr. B. found the squeakings ceased when he pressed firmly against the thin, loose panels and resumed when he released the boards.

#### Conclusions

The above account of the Virginia "bewitched" child is complete enough for our present purpose. Many details were recorded but are not reported here. We entered the investigation with an elaborate plan of controls for accomplices, sleight of hand, and other possibilities. We were amazed at the simplicity of the entire performance and the obvious, natural explanation.

We have no doubt that the child makes conscious, deliberate contractions of the buttocks which explains the peculiar swaying of the mattress. The movements can be duplicated easily. The squeakings and scratching are the result of the dilapidated condition of the spring and bedstead. The moving of the chair with both feet on the rungs or braces was duplicated by Dr. B. in full sight of the family. The darkness of the room helps to conceal much.

The present phenomena indicate the

following probable trial-and-error development. Evidence points toward accidental discovery on the part of the child of the attention value of scratching the head of the bed and the pillow with her hand on the side of the bed away from her grandmother.

Later she discovered that patting and bouncing the bed is more effective and less likely to be detected. To show that the manifestations are yet in process of gradual development, we were told by the family of new special movements of the foot region "like rooting of a hog" and complaints that the "hant" is pulling her hair.

The evidence reported here and some further observations suggest striking analogy with the development of the celebrated Fox sisters of spiritualistic notoriety. The spread of the present nation-wide fascination by the case which has assumed headline proportions, is interesting. The first innocent pranks of Bertha found their way into the newspaper of a neighboring town in an article by a local contributor. This story was mentioned by several large papers in neighboring states. Reporters were sent for more information and the articles became longer and the headlines



**EXPERIMENTAL DAYLIGHT LAMP**

*Because it has a continuous spectrum like the sun and unlike other materials used in vapor lamps, tellurium vapor is the object of this inquisitive scientist's study. He is Dr. N. C. Beese of the Westinghouse Lamp Division at Bloomfield, N. J.*

larger. Finally Science Service found it necessary to get more critical investigation of the situation. This report is the result.

### Predictions

If the child is further investigated psychologically or physically, no abnormalities will be found. Either the present interest will cease and then the alleged phenomena disappear or even more exaggerated claims will be made to accompany the growing demands.

Lest we perpetuate the notion of a benighted, superstitious people inhabiting this part of the country, let us remind you again of the refusal of the large majority to be hoodwinked. Even many close to the scene did not find it worthwhile to make a visit to the place. The remark of one man seemed to typify the character of the people:

"I'm always interested in new agricultural developments but not in new things of this sort."

*Science News Letter, January 14, 1939*

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mon. Dr. Rivers gave the latest news of the viruses in an address before the American Association for the Advancement of Science.

"Some of the viruses," he said, "may be minute, highly parasitic micro-organisms, the midgets of the microbial world, capable of reproduction only within susceptible host cells, others may represent forms of life more or less unfamiliar to us, and still others may be fabrications of their host cells aided by the processes of autocatalysis.

"What life is and where the transition from the non-living to the living takes place, if it does, in the scheme just set forth is not known. Furthermore, the transition may be so gradual that it will be difficult for investigators to assign the particular point at which it occurs."

If Dr. Rivers' view is correct, that the viruses are not all alike, it would after all only describe again a situation quite familiar among the disease germs that can be seen through ordinary microscopes. Some of them are bacteria, some are one-celled animals or protozoa, some are fungi, and some belong to still other classes of microscopic life. "Germs" are also a very much mixed lot.

Yet despite the handicaps which their minute size and often puzzling behavior impose on research, Dr. Rivers stated that a good deal has already been found out about them, and that a small army of research workers is hard after them

to wrest away still more of their secrets.

We have a pretty good idea of the sizes of some of them, he said; they range from almost the size of some of the smaller bacteria down to that of single protein molecules. We can also infer that at least three shapes are found among them: round, oval and rod-like. We know that they commonly have the same kind of electrical charges found on protein molecules.

With his co-workers, Dr. Rivers has made a special study of the vaccine virus, which is the virus of cowpox used in vaccinating against smallpox. They worked out a new method of producing it in quantities large enough to handle by laboratory methods, and thus got a good supply to study.

Among other studies was a direct chemical analysis of purified elementary bodies of this virus, that is, of the tiny units that actually produce the biological results of vaccination. The dried elementary bodies were found to contain 83.12 per cent. protein, 8.54 per cent. fat, 0.72 per cent. ash, 5.56 per cent. residual moisture, 2.06 unidentified material, including a trace of carbohydrate.

"These analyses," Dr. Rivers stated, "do not differ materially from those recorded for bacteria or for protoplasm."

Objective of all this research, Dr. Rivers declared, is control of the diseases of man, animals and plants caused by the viruses. In part, this has already been achieved, as in the case of human smallpox, encephalitis of horses, etc. But other terrible scourges remain still unconquered, like infantile paralysis and such crop-destroying plagues as plant mosaics.

To get the better of these it is first necessary to understand them, and to understand them it is necessary to continue intensive research.

## "Good Old Days" a Fallacy

**T**HE IDEA that life was healthier in the days before civilization is a fallacy, studies of the bones of aboriginal American Indians show.

"In fact," said Prof. W. M. Krogman, of the University of Chicago, in reporting the studies, "the 'good old days' of 'natural life' and 'freedom from illness' just weren't.

"In addition the aborigines averaged about 35 years of mortality—the life span had been run by the mid-fourth decade."

Mastoid infections, osteomyelitis, osteosarcoma or cancer of the bone, osteitis fibrosa, multiple myeloma, arterioscle-

rosis or hardening of the arteries, and kidney and bladder stones are among the conditions which all afflicted the aboriginal Americans as they do modern Americans. Evidences of these diseases have been found in examinations of the bones of the first Americans.

The most frequently found sign of disease is in the skull, where bone has been cut away to relieve a compressed fracture caused by war clubs. This was especially frequent among the Incas of Peru. The right side of the skull was most frequently cut open, the surgical tools being flakes of flint or obsidian used to saw, scrape and cut the bone away.

Cases of five successful healed operations of this type have been found, Prof. Krogman said.

Fractures were fairly common, splinting was known but not often used. When the fracture healed, the affected arm or leg was usually shorter than its mate. Evidence of amputations and artificial peg-legs was also found among Inca bones.

Skulls of Inca, Maya and Aztec show a tendency to a condition which may be similar to rickets or at least to some deficiency of vitamins or minerals.

The question of whether syphilis occurred first in the New World or the Old World cannot be settled on the bones alone, Prof. Krogman declared. There are six sites in the New World, he said, where skulls and long bones of Indians that lived before Columbus arrived on these shores look very much like syphilitic cases.

## People On Mars?

**A**RE there people on Mars?" is a question that over half the boys and girls in typical junior high schools, interviewed by Herbert S. Zim, of Ethical Culture Schools, New York City, are wondering about.

While boys and girls do about the same amount of wondering about scientific matters, Mr. Zim found that curiosity of the girls does not lead to action as often as it does in the case of boys. The boys participated in scientific activities about five times as often as girls.

Whether or not the students have a definite interest in science, they seem to be curious about the same things.

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Ranger naturalists in California say that deer are not voiceless—young fawns and yearlings moan audibly when separated from their fellows.